# Horticulture Tips
## June 2002

Oklahoma Cooperative Extension Service
Division of Agricultural Sciences and Natural Resources
Oklahoma State University

## Garden Tips for June!

*David Hillock*

General Landscape

- Find someone to water plants in the house and garden while on vacation. Harvesting vegetables and mowing the lawn are a must and imply that someone is home.
- Mulch ornamentals, vegetables, and annuals to reduce soil crusting, and to regulate temperatures and moisture during hot summer months. Mulching will reduce about 70 percent of the summer yard maintenance.
- Remain alert for insect damage. Add spider mite to the list. Foliage of most plants becomes pale and speckled; juniper foliage turns a pale yellowish color. Shake a branch over white paper and watch for tiny specks that crawl. Watch for first generation fall webworm. (F-7306)

Turfgrass

- Fertilize warm season grasses as per May. Don't fertilize fescue and other cool season grasses during drought.
- Dollar spot disease of lawns can first become visible in mid-May. Make certain fertilizer applications have been adequate before applying a fungicide. (F-7658)
- Seeding of warm-season grasses should be completed by the end of June to reduce winterkill losses. (F-6419)
- Brown patch disease of cool-season grasses can be a problem. (F-6420)
- Watch your lawn for weeds missed by your earlier preemergent herbicide application. Determine if the weed is a grass, broadleaf or nutsedge and choose the correct post emergence application. (F-6421, F-6601)
- For grassy weeds use a herbicide compound like MSMA, DSMA, AMA or CMA. For broadleaf weeds use a phenoxy type herbicide like 2, 4-D and other mixes. Nutsedge can be reduced with Basagran, Glyphosate or Image according to label directions.
- White grubs will soon be emerging as adult June Beetles. Watch for high populations that can indicate potential damage from later life cycle stages as grubs in the summer.

Fruit and Nut

- Renovate overgrown strawberry beds after the last harvest. Start by setting your lawnmower on its highest setting and mow off the foliage. Next thin crowns 12-24 inches apart. Apply recommended fertilizer, preemergence herbicide if needed and keep watered.

Trees and Shrubs

- Vigorous, unwanted limbs should be removed or shortened on new trees. Watch for forks in the main trunk and remove the least desirable trunk as soon as it is noticed. (F-6415)
- Pine needle disease treatments are needed again in mid-June. (7618)
- Remove tree wraps during the summer to avoid potential disease and insect buildup.
- Softwood cuttings from new growth of many shrubs will root if propagated in a moist shady spot.
- Protect trees from lawnmowers and weed eaters by mulching or using protective aerated covers.

Flowers

- Pinch back leggy annuals to encourage new growth. Fertilize and water appropriately.
- Feed established mums and other perennials.
- When picking fresh roses or removing faded ones, cut back to a leaflet facing the outside of the bush to encourage open growth and air circulation.
- Stake tall perennials before toppling winds arise.

## Procedures for Tissue Sampling to Determine Fruit Crop Nutritional Needs in Oklahoma

*Dean McCraw*

Soil samples do not adequately reflect nutritional needs for perennial fruit crops, i.e. apples, peaches, pears, pecans, and grapes, after the plant reaches bearing age. Accordingly, tissue sampling is necessary to accurately monitor the plant's nutritional needs and tailor a fertilization program that meets the needs.

Since the volume of samples needed to serve Oklahoma's fruit industry is not great enough to sustain operation of a laboratory at Oklahoma State University arrangements have been made to utilize other testing facilities. For the last several years tree fruit and pecan samples have been administered through The Noble Foundation. This arrangement will continue. The procedures are described below for your convenience. Grape testing procedures are somewhat different from tree crops. The Oklahoma grape industry has grown to the extent that tissue testing arrangements are needed but still not adequate to sustain a laboratory specifically for that purpose. Arrangements have been made to allow Oklahoma grape producers to send grape samples to the University of Arkansas analysis laboratory. Procedures required and charges for submission of those samples are also listed below.

TREE FRUIT AND PECAN TISSUE SAMPLING PROCEDURES:

The leaf sample should be collected in mid July. The sample consists of 100 randomly collected **leaves** from fruit trees and 100 **leaflets** from pecan trees. Extension Educators should refer to fact sheet F-6232, Fertilizing Pecan and Fruit Trees, for procedures for collecting and processing the leaf sample for fruit and pecan trees. The cost will remain at $14.00 per sample. A sample data sheet is attached with this newsletter.

OKLAHOMA **GRAPEVINE** TISSUE SAMPLING PROCEDURES:

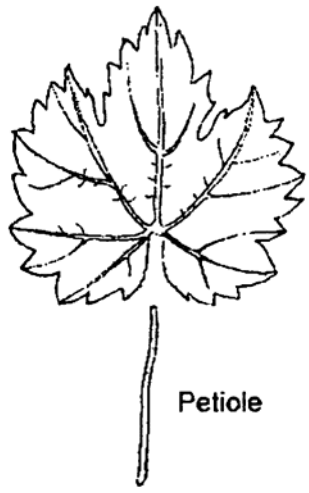
Sample analysis can be performed by a number of commercial laboratories or the University of Arkansas Plant Analysis Laboratory. Oklahoma grape growers who wish to have grape petiole analysis done through the University of Arkansas, should request a fruit foliar test kit (one kit needed per sample to be collected) from: Mrs. Jo Salazar, University of Arkansas, Department of Horticulture, 316 Plant Science Building, Fayetteville, AR 72701, E-mail: salazar@uark.edu, Fax: 479-575-8619.

**Each kit or sample costs $18.00. The check should be made out to the University of Arkansas Agricultural Diagnostic Service Laboratory and should be mailed separately from the sample. The University of Arkansas rate is less than that charged by most states and private laboratories.**

Most eastern USA grape production areas utilize **petiole** samples collected at verasion, i.e. **early to mid July** in Oklahoma, to determine vine nutritional status.

Samples should be collected from uniform areas of the vineyard and should not represent more than ten acres. If the vineyard is not uniform (different soil types, uneven irrigation, presence of nematodes, etc.) more samples should be taken and sent to the laboratory. A change in variety or rootstock within an otherwise uniform ten acre block would require collection of more petiole samples.

The size of the sample should be approximately 100 petioles. Samples can be collected from a select group of vines (reference plot) or by using a consistent pattern across the uniform vineyard block such as sampling from every tenth vine in every fifth or tenth row depending on block size. It is critical that the sample be representative of the vineyard block. Also, sampling from the same vines each year allows the grower to discern seasonal trends in vine nutritional status which could be difficult to identify if the variability in sampling is large.




Petioles used for analysis should come from the youngest full mature leaf near the shoot apex (shoot tip). The leaf blade should be removed and discarded. Petioles are then placed in a clean, labeled paper bag (small lunch size). A record of all information regarding the sample should be retained by the grower to allow for sample identification and interpretation of results from the laboratory.

Petiole samples should be sent to the laboratory immediately. A delay in this process will reduce the accuracy of results. Samples should be kept in a dry and well-ventilated location until they are delivered to the laboratory.

Other items which should be considered by the grower desiring accurate petiole analysis and interpretation of results are: 1) critical values for nutritional status of grapevines in most eastern USA viticulture regions have been primarily developed from research on the Concord variety. Other varieties may have somewhat different nutritional requirements; 2) application of certain fungicides and nutrient sprays can influence petiole sample results. Collection of samples following rainfall or washing of samples with distilled water may help alleviate this concern but careful assessment of lab results should include knowledge of prior spray applications.

Critical nutrient calculations for grapevine petioles sampled at veraison are given in Table 1. The utilization of a well-planned and consistent petiole sampling program will yield important information on vine nutritional status. This information along with proper timing of application can maximize fertilizer use efficiency, vine performance, environmental protection, and vineyard profitability.

Table 1. Specific Element Recommmendations for Grapes from Petioles.

| Element[1] | Deficient | Below Normal | Normal | Above Normal | Excessive |
|---|---|---|---|---|---|
| N (%) | 0.3 - 0.7 | 0.7 - 0.9 | 0.9 - 1.3 | 1.4 - 2.0 | 2.1+ |
| P (%) | 0.12 | 0.13 - 0.15 | 0.16 - 0.29 | 0.30 - 0.50 | 0.51+ |
| K (%) | 0.5 - 1.0 | 1.1 - 1.4 | 1.5 - 2.5 | 2.6 - 4.5 | 4.6+ |
| Ca (%) | 0.5 - 0.8 | 0.8 - 1.1 | 1.2 - 1.8 | 1.9 - 3.0 | 3.1+ |
| Mg (%) | 0.14 | 0.15 - 0.25 | 0.26 - 0.45 | 0.46 - 0.80 | 0.81+ |
| Mn (ppm) | 10 - 24 | 25 - 30 | 31 - 150 | 150 - 700 | 700+ |
| Fe (ppm) | 10 - 20 | 21 - 30 | 31 - 50 | 51 - 200 | 200+ |
| Cu (ppm) | 0 - 2 | 3 - 4 | 5 - 15 | 15 - 30 | 31+ |
| B (ppm) | 14 - 19 | 20 - 25 | 25 - 50 | 51 - 100 | 100+ |
| Zn (ppm) | 1 - 15 | 16 - 29 | 30 - 50 | 51 - 80 | 80+ |

[1]Values may differ among species for optimal growth. Values from leaves will vary significantly. For petioles taken between July 15 to August 15.
Source: Midwest Small Fruit Pest Management Handbook Ohio State Bul. 861

## Future of Landscape/Nursery Industry Looking Bright

The near future looks extremely bright for the nursery/landscape industry, according to a recent Wall Street Journal article. It states that landscape sales are up 20%-30% from 2001, when U.S. consumers spent $8 billion on landscape services. New home sales and people spending more time at home are credited as factors. Last year, 900,000 new homes were sold in this country. A survey showed that two-thirds of all landscape firms have work backlogs. The number of high-end landscape service companies is expected to jump 21% in the next 5 years.

## *Deadheading!*

*David Hillcock*

“Deadheading” is a term often heard amidst the conversations of gardeners across the country. One not familiar with the term may be somewhat startled by such a word. However, it simply means to remove old, faded, spent blooms from your plants by pinching or cutting them off. By deadheading your flowers, new blooms are encouraged and the blooming period of many plants can often be extended.

Remove old blossoms by cutting or pinching back to just above a leaf node on the stem below the flower. If the stem of the plant is somewhat woody and tough, then pruners or a pair of sharp scissors may be used. Soft herbaceous plants can be pinched by hand. When I was working as a gardener in Utah, we used a good old pair of sheep sheers to cut back the hundreds of petunias and other annual flowers we were growing. Petunias respond well to a good haircut about mid July. Just cut them back about half way, give them a shot of fertilizer and watch them bloom like crazy the rest of the summer. Other plants that respond well to deadheading include ageratum, geranium, marigold, and zinnia.

## Spray Weeds With Vinegar?

By Don Comis
May 15, 2002

Some home gardeners already use vinegar as an herbicide, and some garden stores sell vinegar pesticides. But no one has tested it scientifically until now. Agricultural Research Service scientists offer the first scientific evidence that it may be a potent weedkiller that is inexpensive and environmentally safe--perfect for organic farmers.

ARS researchers Jay Radhakrishnan, John R. Teasdale and Ben Coffman in Beltsville, Md., tested vinegar on major weeds--common lamb's-quarters, giant foxtail, velvetleaf, smooth pigweed and Canada thistle—in greenhouse and field studies.

They hand-sprayed the weeds with various solutions of vinegar, uniformly coating the leaves. The researchers found that 5- and 10-percent concentrations killed the weeds during their first two weeks of life. Older plants required higher concentrations of vinegar to kill them. At the higher concentrations, vinegar had an 85- to 100-percent kill rate at all growth stages. A bottle of household vinegar is about a 5-percent concentration.

Canada thistle, one of the most tenacious weeds in the world, proved the most susceptible; the 5-percent concentration had a 100-percent kill rate of the perennial's top growth. The 20-percent concentration can do this in about 2 hours.

Spot spraying of cornfields with 20 percent vinegar killed 80 to 100 percent of weeds without harming the corn, but the scientists stress the need for more research. If the vinegar were sprayed over an entire field, it would cost about $65 per acre. If applied to local weed infestations only, such as may occur in the crop row after cultivation, it may only cost about $20 to $30.

The researchers use only vinegar made from fruits or grains, to conform to organic farming standards.

ARS is the U.S. Department of Agriculture's chief scientific research agency.
http://www.ars.usda.gov/is/pr/2002/020515.htm

## Master Gardener Corner

*David Hillock*

**A Useful Website for the Master Gardener**

The Bayer Advanced LLC has developed a new website with the Master Gardener in mind. Click on www.bayeradvanced.com and here's what you'll find:

**Product Label Guide** - Look here to find detailed information about Bayer Advanced(TM) products. Each label contains quick facts, detailed directions for use, active and inactive ingredients, storage and disposal information, and precautionary statements.

**Problem Solvers** - Use the interactive Bayer Advanced(TM) Problem Solver to find a quick and easy solution to consumer lawn and garden problems. Select from information about garden pests, home insects, rose maladies, lawn insects, weeds and diseases. Each problem solver contains symptoms, an accurate diagnosis and an effective solution.

**Master Gardeners' Tool Shed Times E-Newsletter** - Keep up with the latest information, techniques and products that will make consumers' lawns and gardens beautiful.

**From Around the State**

**Oklahoma Master Gardener Program Continues to Grow!**

This winter and spring we had two new groups begin training as well as two counties joining existing groups. **Dan Cook,** coordinator of **Roger Mills County**, began a new Master Gardener group in western Oklahoma. **Tom Puffinbarger** and **Jim Rhodes,** coordinators of **Alfalfa** and **Woods Counties** respectively, joined together to start a new program in Northwest Oklahoma. **McIntosh County** (**Randy Burris** - coordinator) joined **Muskogee County** and **Grant County** (**Scott Price** – coordinator) joined **Kay County** this year as well. **Jason Hollenback**, coordinator **Delaware County**, has organized a group and will begin training this month. Each group is filled with enthusiastic gardeners ready to learn and provide service to their communities. This now brings our total of counties with active Master Gardener programs to 25! It is so exciting to see so many people willing to learn and then share their knowledge by volunteering in their communities. I look forward to working more with each of the groups in the future and seeing wonderful programs develop as a result of their commitment and enthusiasm.

***We want to know what you are doing!*** *Once again I would like to solicit for your updates. All counties with MGs are encouraged to share project, activity, and event information each month. Please send information to David Hillock, 360 Ag Hall, Stillwater, OK 74078; or email to hillock@oksate.edu.*

## Upcoming Events

**June 8, 2002 – Summer GardenFest.** *Oklahoma Gardening* and OBGA will present the first annual Summer GardenFest. It will be a day filled with horticultural happenings, garden gala and down to earth activities. The event will be held at the OBGA headquarters garden, home of the *Oklahoma Gardening* studio gardens. Featured speakers Holly Shimizu and Darrell Merrell will give their presentations at 10:00 a.m. and 11:30 a.m., respectively. There will be several activities in the afternoon session including tours of the arboretum, cooking demonstration, floral arrangement demonstration, children's garden activity, Japanese garden overview, water garden primer and terra-cotta artwork demonstration. This event is free and everyone is welcomed to come out and enjoy the activities.

**June 22, 2002 - Lane Ag Center Field Day.** The OSU Wes Watkins Agricultural Research and Extension Center and the USDA – ARS South Central Agricultural Research Laboratory will hold a field day from 11:00 a.m. to 6:00 p.m. at Lane, Oklahoma. The event will feature tours of research and extension projects, antique tractor and farm machinery equipment displays and demonstrations, entertainment and refreshments. The field day is for the general public and everyone interested is invited. The Lane Agriculture Center is located on Highway 3, 10 miles east of Atoka. For more information contact Merritt J. Taylor, OSU Center Director at (580)-889-7343 or by email: mtaylor-okstate@lane-ag.